

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

July 15, 2013

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

HAI Project No. 2708
DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Gasco Property, 7900 NW St. Helens Avenue, Portland, Oregon

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural that have occurred relating to the Gasco property during the month of June 2013. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

In memoranda dated June 3, 10, 17, and 24 (John Renda to Dana Bayuk), Anchor QEA provided DEQ with weekly updates and field work notifications as related to the Gasco source control construction progress.

A meeting with representatives of NW Natural and DEQ was conducted on June 6, 2013 to discuss DEQ comments and requests related to the Risk Assessment Work Plan tables.

In e-mail correspondence dated June 7, 2013 (Dana Bayuk to Ben Hung and Taku Fuji), DEQ provided a summary of the June 6, 2013 conference call.

A meeting with representatives of NW Natural, Siltronic, and DEQ, was conducted on June 11, 2013 to discuss the MFA Fill WBZ Plan.

In e-mail correspondence dated June 16, 2013 (John Edwards to Dana Bayuk), Anchor QEA provided DEQ with a list of suggested topics in advance of the regularly-scheduled technical meeting scheduled for the following day.

A meeting with representatives of NW Natural, Siltronic, DEQ, and EPA was conducted on June 17, 2013 to discuss technical items and scheduling as related to upland source control construction and implementation.

In correspondence dated June 17, 2013 (Bob Wyatt to Jim Anderson), NW Natural provided a Position Paper to DEQ as related to NW Natural's desire to move forward with the Upland Risk Assessment for Gasco in accordance with previous agreements. NW Natural had a follow-up meeting with DEQ on June 25, 2013 and another follow-up call on June 27, 2013 to discuss this issue.

In e-mail correspondence dated June 17, 2013 (Dana Bayuk to Rob Ede), DEQ provided confirmation of the receipt of notification for field work (routine groundwater monitoring) scheduled to occur at the Gasco and Siltronic properties during the month of June.

In e-mail correspondence dated June 20, 2013 (Dana Bayuk to John Edwards and Ben Hung), DEQ provided a summary of highlights taken from the June 17, 2013 project meeting.

In e-mail correspondence dated June 26, 2013 (Dana Bayuk to John Renda), DEQ provided confirmation of the receipt of notification for field work (HC&C performance monitoring) scheduled to occur at the Gasco and Siltronic and also provided clarification regarding receipt of feedback from DEQ prior to initiating the work.

In e-mail correspondence dated June 28, 2013 (Taku Fuji to Dana Bayuk), Anchor QEA, on behalf of NW Natural, transmitted requested information on the status of Soil Boring B-19 and TB Series of soil samples at the Gasco Upland site.

In e-mail correspondence dated June 28, 2013 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural, transmitted the *Fill WBZ Investigation Work Plan* for DEQ consideration.

Program Management Implementation meetings were conducted with DEQ on June 13 and June 27, 2013 to discuss the NW Natural program management and project schedules.

2.0 Field Work

Field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during June. The system recovered 45 gallons of fluids, primarily DNAPL, during this time. Approximately 3.6 gallons of DNAPL were manually removed from well PW-01-80 during June.

Discharge of treated water (groundwater from the LNG containment basin) to the City of Portland sanitary sewer was initiated on March 16, 2007 under Temporary Wastewater Discharge Permit 500.022 (expires February 15, 2017). Results from NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling occurs – which is at least quarterly in accordance with the permit. As of June 27, 2013 a total of 4,212,931 gallons of treated water have been discharged to the sanitary sewer in 2013.

Groundwater monitoring activities, consisting of the second quarter groundwater elevation and DNAPL presence/thickness measurements at both the Gasco and adjacent Siltronic properties, were conducted by HAI on June 25, 2013. Further, Anchor QEA conducted quarterly groundwater monitoring from new monitoring and observation wells as part of the baseline monitoring program.

Construction of the groundwater source control extraction system and wastewater treatment system continued during June. A summary of the source control construction work completed each week and the work anticipated over the next two-week period is provided in weekly memoranda to DEQ.

3.0 Anticipated Activities in July and August 2013

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during July and August 2013 to discuss ongoing project tasks.

Construction related activities associated with the groundwater source control system will be conducted during this timeframe, with wastewater treatment plant construction and installation of the alluvium water-bearing zone extraction system controls continuing through August.

Baseline DNAPL monitoring and removal, as needed to maintain at levels below the tops of the well sumps, will be conducted during the July and August timeframe.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind Segment 1 and 2 source control and upland risk assessment-related reviews.
- *Final Stormwater Source Control Data Summary Report*, September 2010, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind reviews for Segments 1 and 2 source control design documents and upland risk assessment-related reviews.
- *Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property*, March 31, 2011, HAI. Based on DEQ feedback, it is understood that DEQ review is being conducted at this time, but the priority is lower than source control and risk assessment items.
- *Supplemental Remedial Investigation Field Sampling Activities, Doane Creek Embankment Soil and Sediment, Siltronic Corporation Property*, dated March 29, 2012 (HAI, 2012).
- *Supplemental Remedial Investigation Field Sampling Activities, DNAPL Characterization, Siltronic Corporation Property*, dated April 23, 2012 (HAI, 2012).
- *Discharge of Groundwater Monitoring Purge Water, NW Natural – Gasco Property*, dated May 24, 2012 (HAI, 2012).
- *Supplemental Remedial Investigation Field Sampling Activities, Groundwater Monitoring Well Installations, Siltronic Corporation Property*, dated July 23, 2012 (HAI, 2012).
- *Fill WBZ Trench Investigation Work Plan Gasco/Siltronic*, dated June 2013 (Anchor QEA, 2013)

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Rob Ede', with a stylized flourish at the end.

Rob Ede, R.G.
Principal

robe@hahnenv.com

- c:
- Ms. Sandra Hart, NW Natural (electronic only)
 - Mr. Bob Wyatt, NW Natural (electronic only)
 - Ms. Patty Dost, Pearl Legal Group PC (electronic only)
 - Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
 - Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
 - Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
 - Mr. Henning Larsen, DEQ NW Region (electronic only)
 - Mr. Tom Gainer, DEQ NW Region (electronic only)
 - Mr. Tom McCue, Siltronic Corporation (electronic only)
 - Ms. Kristine Koch, Region 10 EPA (electronic only)
 - Mr. Sean Sheldrake, Region 10 EPA (electronic only)
 - Mr. Rene Fuentes, Region 10 EPA (electronic only)
 - Mr. Chip Humphrey, Region 10 EPA (electronic only)
 - Mr. Lance Peterson, CDM, Inc. (electronic only)